[CLAIMS]

[Claim 1]

A flake-shaped electrically-conductive zinc oxide comprising:

a flake-shaped zinc oxide which contains aluminum in an amount of 0.0001 to 0.3 moles per mole of zinc atom, and has an average thickness of 0.1 to 2 μm, an average particle size of 1 to 100 μm and an aspect ratio of 3 to 100; and

at least one oxide of a metal selected from the group consisting of antimony, indium, cerium, gallium, tin, zirconium and titanium, said oxide being deposited onto a surface of said flake-shaped zinc oxide in an amount of 0.00005 to 0.05 moles per mole of zinc atom.

[Claim 2]

The flake-shaped electrically-conductive zinc oxide as defined in claim 1, which has a specific electric resistivity of 1×10^3 O · cm or less in flake form.

[Claim 3]

A method of producing a flake-shaped electrically-conductive zinc oxide, comprising:

adding a solution which contains a zinc salt and an aluminum salt in a coexisting state to have aluminum in an amount of 0.0001 to 0.3 moles per mole of zinc atom, and a hexamethylenetetramine solution and/or an urea solution, to hot water in a quantitative ratio of 1 : 1 to induce hydrolysis while maintaining pH in the range of 5.5 to 7.5 so as to produce a flake-shaped basic zinc-based coprecipitation product;

adding at least one water-soluble compound of a metal selected from the group consisting of antimony, indium, cerium, tin, zirconium and titanium, to said flake-shaped basic zinc-based coprecipitation product, in the form of metal atoms in an amount of 0.00005 to 0.05 moles per mole of zinc atom, so as to be deposited onto a surface layer of said flake-shaped basic zinc-based coprecipitation product; and

burning said obtained product under a reducing atmosphere.

[Claim 4]

A method of producing a flake-shaped electrically-conductive zinc oxide, comprising:

adding a solution which contains a zinc salt and an aluminum salt in a coexisting state to have aluminum in an amount of 0.0001 to 0.3 moles per mole of zinc atom, and a

hexamethylenetetramine solution and/or an urea solution, to hot water in a quantitative ratio of 1 : 1 to induce hydrolysis while maintaining pH in the range of 5.5 to 7.5 so as to produce a flake-shaped basic zinc-based coprecipitation product;

separating said flake-shaped basic zinc-based coprecipitation product from a liquid phase;

burning said separated flake-shaped basic zinc-based coprecipitation product to form a flake-shaped zinc oxide;

adding at least one water-soluble compound of a metal selected from the group consisting of antimony, indium, cerium, tin, zirconium and titanium, to said flake-shaped zinc oxide, in the form of metal atoms in an amount of 0.00005 to 0.05 moles per mole of zinc atom, so as to be deposited onto a surface layer of said flake-shaped zinc oxide; and

burning said obtained product under a reducing atmosphere.

[Claim 5]

The method as defined in claim 3, wherein said flake-shaped basic zinc-based coprecipitation product after depositing said metal atoms onto the surface layer thereof is preliminarily burnt under an oxidizing atmosphere at a temperature rise rate of 1 to 10℃/minute and at a temperature of 800 to 1000℃ for a holding time of 10 minutes to 10 hours, and further burnt under a reducing atmosphere at a temperature of 700 to 850℃ for a holding time of 10 minutes to 3 hours.

[Claim 6]

The method as defined in claim 4, wherein said burning of said flake-shaped basic zinc-based coprecipitation product is performed burnt under an oxidizing atmosphere at a temperature rise rate of 1 to 10℃/minute and at a temperature of 800 to 1000℃ for a holding time of 10 minutes to 10 hours.

[Claim 7]

The method as defined in claim 4, wherein said burning under a reducing atmosphere is performed at temperature of 700 to 850℃ for a holding time of 10 minutes to 3 hours.

[Claim 8]

The method as defined in any one of claims 3 to 7, wherein said flake-shaped